

New Weather Bureau Publications

Research Paper No. 43, "The Measurement of Secular Temperature Change in the Eastern United States," J. Murray Mitchell, Jr., U.S. Weather Bureau, Washington, D.C., 1961, 80 pp. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Price: 35 cents.

In the selection of stations on the basis of long series of temperature and precipitation observations for the Climatological Benchmark Network program, final selection was to be predicated on the statistical verification of the homogeneity of their records. For the case of mean temperature data the investigation reported on in this paper leads to a new scheme of homogeneity analysis adopted for the Benchmark program. In the paper it is shown under what circumstances this scheme is justified and of what it consists. Application is then made to seasonal-mean temperature series at a number of stations in eastern United States.

Technical Paper No. 40, "Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years," David M. Hershfield, U.S. Weather Bureau, Washington, D.C., 1961, 115 pp. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Price \$1.75.

A summary of empirical relationships, working guides, and maps useful in practical problems involving rainfall frequency data. Part I consists of a description of the rainfall analyses, and Part II contains 49 rainfall frequency maps covering the contiguous United States.